

CLAIMS

What is claimed is:

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1. In a device having a transceiver, a method for monitoring the
5 integrity of a wireless connection, said method comprising the steps of:
- a) receiving a number of data packets transmitted over said wireless connection;
 - b) indicating whether any of said data packets were not successfully received in said step a);
 - 10 c) receiving retransmitted data packets, said retransmitted data packets comprising said data packets not successfully received in said step a); and
 - d) determining a measure of data packet transfer integrity, wherein said measure is sufficient for determining said number of data packets received in said step a) relative to a total number of data packets received in said steps a)
15 and c).
2. The method as recited in Claim 1 wherein said transceiver is a Bluetooth-enabled device.
- 20 3. The method as recited in Claim 1 further comprising the step of:
providing an indication of said measure of data packet transfer integrity to a user.

4. The method as recited in Claim 3 wherein said indication provided to said user is a visual display.

5. The method as recited in Claim 3 wherein said indication provided to said user is an audio indication.

6. The method as recited in Claim 1 further comprising the step of:
providing an indication of said measure of data packet transfer integrity to an intelligent device, said intelligent device comprising a processor adapted to interpret said indication and execute instructions in response to said indication.

7. The method as recited in Claim 1 further comprising the steps of:
sending an acknowledge signal for each data packet received, said acknowledge signal indicating whether a data packet was successfully received;
counting acknowledge signals associated with data packets successfully received in said step a);
counting acknowledge signals associated with said data packets retransmitted in said step c); and
determining said measure of data packet transfer integrity using said counting.

8. The method as recited in Claim 1 further reciting the steps of:

counting data packets having a same sequence number, wherein said same sequence number is included in each data packet received in said step a) and in a respective retransmitted data packet received in said step c); and

determining said measure of data packet transfer integrity using said
5 counting.

9. The method as recited in Claim 1 further comprising the steps of:
performing a cyclic redundancy check, said cyclic redundancy check for
determining whether a data packet was successfully received; and

10 determining said measure of data packet transfer integrity using results
from said cyclic redundancy check.

10. The method as recited in Claim 1 further comprising the steps of:
performing a header error check, said header error check for determining
15 whether header information in a data packet was successfully received; and
determining said measure of data packet transfer integrity using results
from said header error check.

11. The method as recited in Claim 1 further comprising the steps of:
20 determining a measure of signal strength for said wireless connection;
and
using said measure of signal strength in said step d).

12. In a device having a transceiver, a method for monitoring the integrity of a wireless connection, said method comprising the steps of:

a) transmitting a number of data packets over said wireless connection;
b) receiving an acknowledge signal for each data packet, said
5 acknowledge signal indicating whether a data packet was successfully received;

c) retransmitting any data packets not successfully received in said step a); and

d) determining a measure of data packet transfer integrity, wherein said
10 measure is sufficient for determining said number of data packets transmitted in said step a) relative to total data packets transmitted in said steps a) and c).

13. The method as recited in Claim 12 wherein said transceiver is a Bluetooth-enabled device.

14. The method as recited in Claim 12 further comprising the step of:
providing an indication of said measure of data packet transfer integrity to
a user.

15. The method as recited in Claim 14 wherein said indication
provided to said user is a visual display.

16. The method as recited in Claim 14 wherein said indication provided to said user is an audio indication.

17. The method as recited in Claim 12 further comprising the step of:
5 providing an indication of said measure of data packet transfer integrity to an intelligent device, said intelligent device comprising a processor adapted to interpret said indication and execute instructions in response to said indication.

18. The method as recited in Claim 12 further comprising the steps of:
10 counting said total data packets transmitted in said steps a) and c); and determining said measure of data packet transfer integrity using said counting.

19. The method as recited in Claim 12 further comprising the steps of:
15 counting acknowledge signals associated with data packets successfully transmitted in said step a);
counting acknowledge signals associated with said data packets retransmitted in said step c); and
determining said measure of data packet transfer integrity using said
20 counting.

20. The method as recited in Claim 12 further reciting the steps of:

counting data packets having a same sequence number, wherein said same sequence number is included in each data packet transmitted in said step a) and in a respective data packet retransmitted in said step c); and

determining said measure of data packet transfer integrity using said
5 counting.

21. A transceiver comprising:

a module for transmitting and receiving data packets via a wireless connection; and

10 a central processing unit coupled to said module;

said transceiver adapted to determine whether said data packets were successfully received in a first-occurring transmission, wherein data packets not successfully received are received in a subsequent transmission;

said transceiver further adapted to determine a measure of data packet
15 transfer integrity, wherein said measure is sufficient for determining a number of data packets successfully received in said first-occurring transmission relative to a total number of data packets received in said first-occurring transmission and said subsequent transmission.

20 22. The transceiver of Claim 21 wherein said module is a Bluetooth-enabled device.

23. The transceiver of Claim 21 further comprising:

an indicator unit adapted to provide an indication of said measure of data packet transfer integrity to a user.

24. The transceiver of Claim 23 wherein said indicator unit provides a
5 visual display of said measure of data packet transfer integrity.

25. The transceiver of Claim 23 wherein said indicator unit provides
an audio indication of said measure of data packet transfer integrity.

10 26. The transceiver of Claim 21 wherein an indication of said measure
of data packet transfer integrity is provided to an intelligent device
communicatively coupled to said transceiver, said intelligent device comprising
a processor adapted to interpret said indication and execute instructions in
response to said indication.

15 27. The transceiver of Claim 21 wherein said transceiver is adapted to
perform a first count of acknowledge signals associated with said data packets
successfully received in said first-occurring transmission and a second count of
acknowledge signals associated with said data packets received in said
20 subsequent transmission, said acknowledge signals for indicating whether a
data packet was successfully received;

wherein said transceiver determines said measure of data packet
transfer integrity using said first count and said second count.

28. The transceiver of Claim 21 wherein said transceiver is adapted to count data packets having a same sequence number, wherein said same sequence number is included in each data packet received in said first-
5 occurring transmission and in a respective data packet received in said subsequent transmission;

wherein said transceiver determines said measure of data packet transfer integrity using said count.

10 29. The transceiver of Claim 21 wherein said transceiver is adapted to perform a cyclic redundancy check, said cyclic redundancy check for determining whether a data packet was successfully received;

wherein said transceiver determines said measure of data packet transfer integrity using results from said cyclic redundancy check.

15 30. The transceiver of Claim 21 wherein said transceiver is adapted to count said total number of data packets transmitted and received;

wherein said transceiver determines said measure of data packet transfer integrity using said count.

20 31. The transceiver of Claim 21 wherein said transceiver is adapted to perform a header error check, said header error check for determining whether header information in a data packet was successfully received;

wherein said transceiver determines said measure of data packet transfer integrity using results from said header error check.

32. The transceiver of Claim 21 wherein said transceiver is adapted to
5 determine a measure of signal strength for said wireless connection, wherein
said measure of data packet transfer integrity comprises said measure of signal strength.

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